Commonwealth of Kentucky Environmental and Public Protection Cabinet Department for Environmental Protection Division for Air Quality

Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

Final

AIR QUALITY PERMIT Issued under 401 KAR 52:030

Permittee Name: Mallinckrodt Baker, Inc.

Mailing Address: P.O. Box 800, Highway 68 Bypass, Paris, KY

40361

Source Name: Mallinckrodt Baker, Inc. Mailing Address: 7001 Highway 68 Bypass

Paris, KY 40361

Source Location: 7001 Highway 68 Bypass, Paris KY

Permit ID: F-08-006

Agency Interest #: 294

Activity ID: APE20080001

Review Type: Conditional Major, Operating

Source ID: 21-017-00015

Regional Office: Frankfort Regional Office

663 Teton Trail, Suite B Frankfort, KY 40601

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Application

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John S. Lyons, Director Division for Air Quality

Revised 05/07/07

TABLE OF CONTENTS

SECTION	ISSUANCE	PAGE
A. PERMIT AUTHORIZATION	Initial	1
B. EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS AND OPERATING CONDITIONS	Initial	2
C. INSIGNIFICANT ACTIVITIES	Initial	19
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	Initial	21
E. SOURCE CONTROL EQUIPMENT REQUIREMENTS	Initial	25
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS	Initial	26
G. GENERAL PROVISIONS	Initial	29
H. ALTERNATE OPERATING SCENARIOS	Initial	34
I. COMPLIANCE SCHEDULE	Initial	35

Permit ID	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
F-08-006	Initial	APE20080001	03/15/08	TBD	Initial Conditional Major Operating Permit

Permit Number: <u>F-08-006</u> **Page:** 1 **of** 35

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Permit Number: <u>F-08-006</u> **Page:** 2 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Combustion Units

EP 01 Indirect Heat Exchanger

Description: Cleaver Brooks 100/600-300-15C boiler #1 for space heating and

process heat

Primary Fuel: Natural Gas, No. 2, No. 4, and No. 6 Fuel Oils

Construction Date: December 15, 1977

Control Device: None

Capacity: 12.5 mmBtu/hr

EP 02 Indirect Heat Exchanger

Description: Cleaver Brooks 100/600-300-15C boiler #2 for space heating and

process heat

Primary Fuel: Natural Gas, No. 2, No. 4, and No. 6 Fuel Oils

Construction Date: December 15, 1977

Control Device: None

Capacity: 12.5 mmBtu/hr

EP 03 Indirect Heat Exchanger

Description: Burnham CW-50-O-GP fire-tube boiler for process heat

Primary Fuel: No. 2 Fuel Oil Construction Date: January 10, 2006

Control Device: None

Capacity: 1.44 mmBtu/hr

APPLICABLE REGULATIONS:

401 KAR 59:015, *New Indirect Heat Exchangers*, applies to indirect heat exchangers with a capacity of more than one million British thermal units per hour (mmBtu/hr) and less than 250 mmBtu/hr that commenced construction after April 9, 1972.

Self-imposed limitations to preclude applicability of 401 KAR 52:020, *Title V Permit*.

1. Operating Limitations:

The facility has requested the following limitations in order to show compliance with sulfur emission limits to preclude the applicability of 401 KAR 52:020, Title V permits.

- a. The sulfur content of No. 2 fuel oil input to the boilers shall not exceed 0.5% by weight.
- b. The sulfur content of No. 4 fuel oil input to the boilers shall not exceed 1.0% by weight.
- c. The sulfur content of No. 6 fuel oil input to the boilers shall not exceed 1.2% by weight.

Compliance Demonstration Method:

For compliance, refer to **5. Specific Recordkeeping Requirements**.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:015, Section 4(1)(c), emissions of particulate matter (PM) from the combustion of natural gas, No. 2 fuel oil, No. 4 fuel oil, and/or No. 6 fuel oil at each boiler shall not exceed 0.445 lbs/mmBtu actual heat input.

Permit Number: <u>F-08-006</u> **Page:** 3 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Pursuant to 401 KAR 59:015, Section 4(2), the opacity of visible emissions from the combustion of natural gas, No. 2 fuel oil, No. 4 fuel oil, and/or No. 6 fuel oil in EP 01, EP 02, or EP 03 at each boiler shall not exceed 20%, except:
 - (1) a maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot; and
 - (2) for emissions from an indirect heat exchanger during building a new fire for the period required to bring the indirect heat exchanger up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- c. Pursuant to 401 KAR 59:015, Section 5(1)(c)1, emissions of sulfur dioxide (SO₂) from the combustion of natural gas, No. 2 fuel oil, No. 4 fuel oil, and/or No. 6 fuel oil at each boiler shall not exceed 2.01 lbs/mmBtu actual heat input.
- d. To preclude the applicability of 401 KAR 52:020, Title V permits, for any combination of fuels, emissions of sulfur dioxide (SO₂) from the boilers shall not exceed 90.0 tons during any twelve (12) consecutive month period.
- e. See **Section D.3** for source-wide pollutant emission limitations.

Compliance Demonstration Method:

a. While burning natural gas, the indirect heat exchangers are considered to be in compliance with the particulate matter, sulfur dioxide and opacity standards in 2.a, 2.b, and 2.c Emission Limitations.

These units shall be considered to be in compliance with the particulate matter and the sulfur dioxide emission limitations in **2.a and 2.c Emission Limitations** while burning liquid fuels, based on AP-42 emission factors and the fuel oil sulfur content limitations. Compliance with the opacity limitations in **2.b Emission Limitations** shall be determined in accordance with **4.a Specific Monitoring Requirements**.

b. Compliance with the annual sulfur dioxide (SO₂) emissions limit in **2.d** <u>Emission</u> <u>Limitations</u> shall be determined by the following formula and sulfur content in the fuels in **1.0** <u>Operating Limitations</u>:

Actual Emissions (tons per year) of $SO_2 =$

$$\sum_{i=1}^{12} \left(\frac{[\text{NG}_{\text{B}} \times \text{EF}] + [\text{FO2}_{\text{B}} \times \text{EF} \times \text{S\%}] + [\text{FO4}_{\text{B}} \times \text{EF} \times \text{S\%}] + [\text{FO6}_{\text{B}} \times \text{EF} \times \text{S\%}]}{2000 \, (\text{lb/ton})} \right)_{i}$$

Permit Number: F-08-006 Page: 4 of 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where,

i = 1, 2, ... 11, 12 months, where the actual calendar months used in the compliance calculation are specific to each 12-month compliance period;

NG_B = Usage of Natural Gas (SCC Units = mmscf) for boilers;

FO2_B = Usage of No. 2 Fuel Oil (SCC Units = kilogallons) for boilers;

FO₄_B = Usage of No. 4 Fuel Oil (SCC Units = kilogallons) for boilers;

 $FO6_B$ = Usage of No. 6 Fuel Oil (SCC Units = kilogallons) for boilers;

 $EF = Emission Factor for SO_2$ (lbs/SCC unit).

Note: All emission calculations shall be based on emission factors acquired from U.S. AP-42 or from other emission factors approved by the Division.

3. Testing Requirements:

Pursuant to 401 KAR 59:005 Section 2(2) and 401 KAR 50:045, Section 1, performance testing shall be conducted as required by the Division using the reference methods specified in 401 KAR 50:015.

4. **Specific Monitoring Requirements:**

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions from each boiler stack at least once per calendar month when burning No. 2 fuel oil, No. 4 fuel oil, or No. 6 fuel oil and maintain a log of the observations noting the following information:
 - (1) Whether any air emissions were visible from any individual stack;
 - (2) All emission points from which visible emissions occurred; and
 - (3) Any corrective actions taken.

If no visible emissions are observed then no further action is required. If visible emissions are observed, the permittee shall perform an EPA Reference Method 9 reading for emission points of concern within 24 hours of observing visible emissions. The opacity observed shall be recorded in a log. The permittee shall observe and record the following information:

- (1) The color of the emissions;
- (2) Whether the emissions were light or heavy;
- (3) The total duration of the visible emission incident;
- (4) The cause of the abnormal emissions; and
- (5) Any corrective actions taken.

The Method 9 reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals who performed a Method 9 at the plant and the date that they received their Visible Emissions Evaluator's certification.

b. The permittee shall monitor and record monthly and twelve (12) consecutive month total fuel oil (No. 2, No. 4, and No. 6) and natural gas usage rates and sulfur dioxide (SO₂) emission rates (tons) for the indirect heat exchangers.

5. Specific Recordkeeping Requirements:

Permit Number: <u>F-08-006</u> **Page:** 5 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

The permittee shall maintain the following records in a designated logbook or in an electronic format. Records shall be made available within 30 days of the end of each compliance period and retained for at least five (5) years:

- a. To document compliance with **1.a**, **1.b**, **1.c** <u>Operating Limitations</u> and **2.d** <u>Emission</u> <u>Limitations</u> the permittee shall maintain the following records:
 - (1) Total monthly and twelve consecutive month usage of No. 2, No. 4, and No. 6 fuel oils and natural gas as well as sulfur dioxide (SO₂) emissions (tons);
 - (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the liquid and gaseous fuel combusted during the period;
 - (3) Fuel supplier certifications;
 - (4) The name of the fuel supplier; and
 - (5) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- b. Monthly visible opacity observation records and Method 9 opacity test results, if necessary, as specified in **4.a** Specific Monitoring Requirements.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>F-08-006</u> **Page:** 6 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Dry Materials Packaging

EP 05 Accurate Room Vibratory Feeder/Crusher Feeder

Description: Mateer-Burt 33A/Tables and Scales

Construction Date: May 1, 1978

Control Device: Torit DC Baghouse, control efficiency 99%

05(a) Vibratory Feeder

Capacity: 600 lbs/hr

05(b) Crusher Feeder Capacity: 2,200 lbs/hr

EP 07 Bulk to Bulk Packaging Room/Accurate Hand Pack

Description: Tables and Scales Construction Date: May 1, 1978

Control Device: Torit DC Baghouse, control efficiency 99%

07(a) Bulk to Bulk Packaging Room

Capacity: 1,500 lbs/hr

07(b) Accurate Hand Pack

Capacity: 600 lbs/hr

EP 08 Cool Room

Description: Tables and Scales Construction Date: May 1, 1978

Control Device: Cambridge Cartridge Filters, control efficiency 95%

08(a) Cool Room Station 10

Capacity: 700 lbs/hr

08(b) Cool Room Station 11

Capacity: 700 lbs/hr

08(c) Cool Room Station 12

Capacity: 700 lbs/hr

EP 09 Poison Room

Description: Tables and Scales

Construction Date: May 1, 1978

Control Device: Cambridge Cartridge Filters, control efficiency 95%

Capacity: 450 lbs/hr

Permit Number: <u>F-08-006</u> **Page:** 7 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP 10 Clean Room/Dust & Stain Room

Description: Tables and Scales Construction Date: May 1, 1978

Control Device: Cambridge Cartridge Filters, control efficiency 95%

10(a) Clean Room Capacity: 700 lbs/hr

10(b) Dust & Stain Room

Capacity: 450 lbs/hr

EP 11 Dry Salts Packaging
Description: Tables and Scales
Construction Date: May 1, 1978

Control Device: Torit DC Baghouse, control efficiency 99%

11(a) Dry Salts Pack Station #1

Capacity: 700 lbs/hr

11(b) Dry Salts Pack Station #2

Capacity: 700 lbs/hr

11(c) Dry Salts Pack Station #3

Capacity: 700 lbs/hr

11(d) Dry Salts Pack Station #4

Capacity: 700 lbs/hr

11(e) Dry Salts Pack Station #5

Capacity: 700 lbs/hr

APPLICABLE REGULATIONS:

401 KAR 59:010, *New Process Operations*, applies to each affected facility or source associated with a process operation that commenced on or after July 2, 1975, which is not subject to another emission standard with respect to particulates in 401 KAR Chapter 59.

1. Operating Limitations:

None

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, Section 3, the permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

Permit Number: F-08-006 Page: 8 of 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Pursuant to 401 KAR 59:010 Section 3(2), emissions of particulate matter (PM/PM₁₀) from the control device or stack at EP 05, EP 07, EP 08, EP 09, EP 10 and EP 11 shall be limited based on the following:

For process rates greater than or equal to 1,000 lbs/hr but less than 60,000 lbs/hr, the allowable emissions of particulate matter shall not exceed:

 $3.59 \times (Tons Processed)^{0.62} lbs/hr.$

For processing rates of 1000 lbs/hr or less, the allowable emission rate is 2.34 lbs/hr.

c. See **Section D.3** for source-wide pollutant emission limitations.

Compliance Demonstration Method:

a. Mass Emission Standard:

The permittee is considered to be in compliance with the allowable PM emission rate when operating the associated particulate control system for EP 05, EP 07, EP 08, EP 09, EP 10, or EP 11 in accordance with **7. Specific Control Equipment Operating Conditions**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60, Appendix A, Method 5.

b. Opacity Limit:

Refer to 4. Specific Monitoring Requirements.

c. Also see Section D.3, Compliance Demonstration Method.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing shall be conducted as required by the Division using the reference methods specified in 401 KAR 50:015.

4. Specific Monitoring Requirements:

The permittee shall visually inspect the control equipment once per week. The weekly inspection shall consist of a visual inspection of the physical condition of the external unit, combined with the corresponding visual emissions observation for each stack for EP 05, EP 07, EP 08, EP 09, EP 10, and EP 11 as outlined below:

- a. Whether any air emissions were visible from any individual stack;
- b. All emission points from which visible emissions were observed; and
- c. Whether the visible emissions were normal for the stack.

Permit Number: F-08-006 Page: 9 of 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

If no visible emissions are observed then no further action is required. If visible emissions are observed, the permittee shall perform an EPA Reference Method 9 reading for emission points of concern within 24 hours of observing visible emissions. The opacity observed shall be recorded in a log. The permittee shall observe and record the following information:

- a. The color of the emissions;
- b. Whether the emissions were light or heavy;
- c. The total duration of the visible emission incident;
- d. The cause of the abnormal emissions; and
- e. Any corrective actions taken.

The Method 9 reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals who performed a Method 9 at the plant and the date that they received their Visible Emissions Evaluator's certification.

5. Specific Recordkeeping Requirements:

The permittee shall maintain the following records in a designated logbook or in an electronic format. Records shall be made available within 30 days of the end of each compliance period and retained for at least five (5) years:

- a. All maintenance activities performed at the control equipment;
- b. Weekly visible opacity observation records and Method 9 opacity test results, if necessary, as specified in **4. Specific Monitoring Requirements**; and
- c. The permittee shall record the occurrence, duration, cause, and any corrective action taken for each incident when EP 05, EP 07, EP 08, EP 09, EP 10, or EP 11 is in operation but the corresponding control system is not in operation.

6. Specific Reporting Requirements:

- a. The permittee shall submit a copy of the control equipment inspection and repair log for those times when corrective actions are required due to an opacity exceedance as noted in **4. Specific Monitoring Requirements**. When corrective actions are required due to an opacity exceedance, the permittee shall submit the following information from the control device inspection and repair log.
 - (1) A description of the deviation;
 - (2) The date and time period of the deviation;
 - (3) Actions taken to correct the deviation; and
 - (4) A statement of the cause of each deviation.
- b. The permittee shall report the occurrence, duration, cause, and any corrective action taken for each incident when EP 05, EP 07, EP 08, EP 09, EP 10, or EP 11 is in operation but the corresponding control system is not in operation.

Permit Number: <u>F-08-006</u> **Page:** 10 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F** (Conditions 5 and 6).

7. Specific Control Equipment Operating Conditions:

The associated control system for EP 05, EP 07, EP 08, EP 09, EP 10, and EP 11 shall control particulate emissions and be operated properly in accordance with manufacturer's specifications and/or standard operating procedures at all times when EP 05, EP 07, EP 08, EP 09, EP 10, or EP 11 is in operation.

Permit Number: <u>F-08-006</u> **Page:** 11 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Acid Packaging

EP 12/15 Automatic and Hand Filling Liquid Acids

Model/Make: MRM/Elgin GRC-A

Construction Date: May 1, 1978

Control Device: Packed-Bed Scrubber (Caustic Scrubber #1), control efficiency 95%

12(a) Acid Autoline Capacity: 750 gal/hr

12(b) Acid Bulk Filler

Capacity: 900 gal/hr

12(c) Peroxide Bulk Filler

Capacity: 500 gal/hr

12(d) Mobile Stations (Maximum 8)

Capacity: 100 gal/hr each

12(e) HF Fill Line Capacity: 200 gal/hr

12(f) HF Drum Station

Capacity: 350 gal/hr

15 Acid Hood Side Station

Capacity: 100 gal/hr

STATE-ONLY APPLICABLE REGULATIONS:

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances*, is applicable to an emissions unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

See Section D.3.

Compliance Demonstration Method

The permittee is deemed to be in compliance with 401 KAR 63:020, Section 3 when the emission control systems operate as specified in 4. Specific Monitoring Requirements and 7. Specific Control Equipment Operating Conditions. See Section D.3.

2. Emission Limitations:

See Section D.3 for source-wide pollutant emission limitations and compliance.

Permit Number: F-08-006 Page: 12 of 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. <u>Testing Requirements</u>:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. Specific Monitoring Requirements:

- a. The permittee shall maintain, calibrate, and operate according to the manufacturer's specification, a monitoring device for the daily measurement of pressure drop across the scrubber at caustic scrubber #1, when the emission units controlled by the scrubber are in operation.
- b. The permittee shall maintain, calibrate, and operate according to the manufacturer's specification, a monitoring device for daily measurement of the scrubbing liquid flowrate to the scrubber, when the emission units controlled by the scrubber are in operation.
- c. See Section D.5, Source Monitoring Requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of preventive maintenance and inspections of the scrubber in accordance with **7. Specific Control Equipment Operating Conditions**.
- b. The permittee shall maintain daily records of the pressure drop across the scrubber and scrubbing liquid flowrate to the scrubber for caustic scrubber #1. The permittee shall include in its daily record when a pressure drop or flowrate measurement is not taken and the reason for the lack of a measurement (e.g., the process did not operate that day).

6. Specific Reporting Requirements:

The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall maintain the pressure drop across the scrubber at caustic scrubber #1 and scrubbing liquid flowrate within the ranges recommended by the manufacturer or established during the most recent stack test.
- b. Preventive maintenance shall be performed for caustic scrubber #1 in accordance with the manufacturer's recommendations, and the scrubber shall be operated and maintained in accordance with manufacturer's specifications.

Permit Number: <u>F-08-006</u> **Page:** 13 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Solvent Packaging Area

EP 13/14 Solvent Packaging Room

Model/Make: NJM PGP-PAKA Construction Date: May 1, 1978

Control Device: None

13(a) Solvent Autoline #1

Capacity: 1,400 gal/hr

13(b) Solvent Autoline #2

Capacity: 1,400 gal/hr

13(c) Solvent Station #1 (5-Gal Filler)

Capacity: 550 gal/hr

13(d) Solvent Station #2 (Drums)

Capacity: 1,000 gal/hr

13(e) Solvent Station #8 (Drums)

Capacity: 1,000 gal/hr

13(f) Mobile Side Stations (Maximum 11)

Capacity: 150 gal/hr each

14 Solvent Hazard Hood

Capacity: 150 gal/hr

Solvent/Ether Packaging Area

EP 17 Ether/Solvent Packaging Room

Model/Make: Mallinckrodt Baker Designed

Construction Date: May 1, 1980

Control Device: None

17(a) Ether/Solvent Autofill Line

Capacity: 334 gal/hr

17(b) Ether/Solvent Drum Filling Station

Capacity: 640 gal/hr

17(c) Two Ether/Solvent Mobile Side Stations

Capacity: 500 gal/hr each

Permit Number: <u>F-08-006</u> **Page:** 14 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Bulk Material Receiving

EP 23 Rail Car Unloading

Model/Make: Mallinckrodt Baker Designed

Construction Date: May 1, 1978
Control Method: Nitrogen Blanket
Capacity: 5,800 gal/hr

EP 24 Truck Unloading

Model/Make: Mallinckrodt Baker Designed

Construction Date: May 1, 1978
Control Method: Nitrogen Blanket
Capacity: 5,800 gal/hr

EP -- Storage Vessel

Description: HCl Storage Vessel Control Method: Caustic Scrubber #2

Capacity: 6,500 gal (2,372,500 gal/yr)

APPLICABLE REGULATIONS:

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances*, applies to each facility which emits or may emit potentially hazardous or toxic substances as defined in 401 KAR 63:020, Section 2. The Solvents Packaging Area (EP 13/14), Solvent/Ether Packaging Area (EP 17), and Bulk Material Receiving (EP 23 and EP 24) are subject to 401 KAR 63:020.

1. Operating Limitations:

None

2. Emission Limitations:

See **Section D.3** for source-wide pollutant emission limitations.

3. <u>Testing Requirements</u>:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**

None

5. Specific Recordkeeping Requirements:

None

6. Specific Reporting Requirements:

None

Permit Number: <u>F-08-006</u> **Page:** 15 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Solvent and Ether Distillation

EP 50 Solvent Still #1/Receivers #1 and #2

Model/Make: R. Gelf & Sons Construction Date: July 20, 1982 Capacity: 24 gal/hr - design

Control Device: None

EP 55 Solvent Still #2/Receivers #3 and #4

Model/Make: Ceramic Coatings Construction Date: July 15, 1990 Capacity: 24 gal/hr - design

Control Device: None

EP 56 Solvent Still #3/Receivers #5 and #6

Model/Make: Die Dietrich

Construction Date: December 1, 1990 Capacity: 24 gal/hr - design

Control Device: None

APPLICABLE REGULATIONS:

40 CFR Part 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after January 5, 1981, and on or before November 7, 2006, applies to affected facilities in the synthetic organic chemicals manufacturing industry. The list of chemicals produced by affected facilities is included under 40 CFR 60.489. The affected equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by 40 CFR Part 60, Subpart VV. Stills #1 (EP 50) and #3 (EP 56), which were constructed after January 5, 1981 and are used to distill chemicals listed in 40 CFR 60.489, each have a design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) and are subject to only the recordkeeping/reporting requirements of 40 CFR 60.486(i) and 40 CFR 60.487, pursuant to 40 CFR 60.480(d)(2). Still #2 (EP 55), which was constructed after January 5, 1981, processes only dichloromethane which is not a VOC; therefore, Still #2 is not in VOC service and is subject to only the recordkeeping/reporting requirements of 40 CFR 60.486(i), 40 CFR 60.486(j), and 40 CFR 60.487.

Permit Number: <u>F-08-006</u> **Page:** 16 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

40 CFR Part 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operation, apply to affected facilities that are part of a process unit that produces any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, except for the exemptions listed in 40 CFR 60.660(c). According to 40 CFR 60.660(b)(2), an affected facility is defined as each combination of a distillation unit and the recovery system into which its vent stream is discharged, for which construction, modification, and reconstruction commenced after December 30, 1983. Distillation Still #1 was installed prior to this date. Distillation Still #3 (EP 56) has a design capacity of less than one gigagram per year (1,000 Mg/yr) and is subject to only the recordkeeping/reporting requirements of 40 CFR 60.665(j), 40 CFR 60.665(l)(6), and 40 CFR 60.665(n). Dichloromethane, which is processed in Still #2, is not a VOC pursuant 40 CFR 51.100(s)(1) and, therefore, this still in not considered as an "affected facility" and Subpart NNN does not apply.

1. **Operating Limitations:**

- a. For Still #2, the permittee shall comply as follows:
 - (1) To preclude the applicability of the operating and emissions standards of 40 CFR Part 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing Industry, permittee shall not produce, as intermediate or final products, one or more of the chemicals listed in 40 CFR 60.489 in this still.
 - (2) To preclude the applicability of the operating and emissions standards of 40 CFR Part 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operation, for distillation still #2 the permittee has voluntarily requested the synthetic limitation specified in Section D.3.c.(3)(ii).
- b. Material usage shall be limited in accordance with **Section D.3.c** such that the source-wide pollutant emission limitations set forth in **Section D.3.a** are not exceeded.

Compliance Demonstration Method:

See 5. <u>Specific Recordkeeping Requirements</u> and <u>6. Specific Reporting Requirements</u> below. Also See <u>Section D.3.</u>

2. Emission Limitations:

See **Section D.3** for source-wide pollutant emission limitations.

Compliance Demonstration Method:

See Section D.3.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

Permit Number: F-08-006 Page: 17 of 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the type of product processed at Still #2.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60.486(i), for Stills #1 and #3 the following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d):
 - (1) An analysis demonstrating the design capacity of the affected facility;
 - (2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; or
 - (3) An analysis demonstrating that equipment is not in VOC service.
- b. Pursuant to 40 CFR 60.486(j), information and data used to demonstrate that Still #2 is not in VOC service shall be recorded in a log that is kept in a readily accessible location.
- c. Pursuant to 40 CFR 60.665(j), for Still #3 as an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in 40 CFR 60.660(c)(5) the permittee shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.
- d. For Stills #1 and #3, the permittee shall comply as follows:
 - (1) In accordance with 40 CFR Part 60.480(d)(1) and (d)(2), for Stills #1 and #3 the permittee shall maintain records as required in 40 CFR 60.482 since these two facilities each have a design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) and are exempt from 40 CFR 60.482.
 - (2) In accordance with 40 CFR Part 60.660(c)(5), for Still #3 the permittee shall comply with the recordkeeping and reporting requirements of 40 CFR 60.665(j), (l)(6) and (n).

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 60.487(a), each owner or operator subject to the provisions of 40 CFR Part 60, Subpart VV shall submit semiannual reports to the Division beginning six months after the initial startup date.
- b. Pursuant to 40 CFR 60.487(c), all semiannual reports to the Department shall include the following information, summarized from the information in 40 CFR 60.486:
 - (1) Process unit identification.
 - (2) Dates of process unit shutdowns which occurred within the semiannual reporting period.
 - (3) Revisions to items reported in according to 40 CFR 60.487(b) if changes have occurred since the initial report or subsequent revisions to the initial report.

Permit Number: <u>F-08-006</u> **Page:** 18 **of** 35

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Pursuant to 40 CFR 60.487(e), an owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

- d. Pursuant to 40 CFR 60.487(f), the requirements of 40 CFR 60.487(a) through (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a) through (c), provided that they comply with the requirements established by the State.
- e. Pursuant to 40 CFR 60.665(1), each owner or operator that seeks to comply with the requirements of 40 CFR Part 60, Subpart NNN by complying with the requirements of 40 CFR 60.660 (c)(4), (c)(5), or (c)(6) or 40 CFR 60.662 shall submit to the Division semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.
 - (1) Any change in equipment or process operation, as recorded under 40 CFR 60.665(j), that increases the design production capacity above the low capacity exemption level in 40 CFR 60.660(c)(5) and the new capacity resulting from the change for the distillation process unit containing the affected facility. These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and ETOC. The performance test is subject to the requirements of 40 CFR 60.8. The facility must begin compliance with the requirements set forth in 40 CFR 60.660(d) or 40 CFR 60.662. If the facility chooses to comply with 40 CFR 60.662, the facility may qualify for an exemption in 40 CFR 60.660(c)(4) or (6).
- f. Pursuant to 40 CFR 60.665(n), each owner or operator that seeks to demonstrate compliance with 40 CFR 60.660(c)(5) must submit to the Administrator an initial report detailing the design production capacity of the process unit. The conditional major permit application to Permit F-08-006, received on January 14, 2008 satisfies this requirement.
- g. For Still #3, the permittee shall comply as follows:
 (1) In accordance with 40 CFR Part 60.660(c)(5), for Still #3 the permittee shall comply with the recordkeeping and reporting requirements of 40 CFR 60.665(j), (l)(6) and (n).

7. Specific Control Equipment Operating Conditions:

None

Permit Number: <u>F-08-006</u> **Page:** 19 **of** 35

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause, and any corrective actions taken due to abnormal visible emissions.

	<u>Description</u>	Generally Applicable Regulation
1.	Two Standard Offset Printers (used to print labels)	None
2.	Analytical Lab Hoods	None
3.	Gas-fired Space Heaters (rated less than 1.0 mmBtu/hr each)	None
4.	20 hp Natural Gas-Fired Emergency Generator	None
5.	Storage Vessels (each having a capacity less than 580 gallons and containing organic liquids (solution packaging area)) with uncontrolled HAP emissions < 1,000 pound per year	
6.	Solution Blending and Packaging Operation	s None
7.	Aqueous Solution Blending and Packaging Operation (with caustic scrubber #1) with uncontrolled HAP emissions < 1,000 pound per year	None
8.	Flammable Solution Blending and Packagin Operation	g None
9.	Hazard Room	None
10.	Storage Vessel (containing inorganic aqueouliquids (HF tank with venturi scrubber)) wit uncontrolled HAP emissions < 1,000 pound	h

Permit Number: <u>F-08-006</u> **Page:** 20 **of** 35

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Description

Solvent Dump Station

15.

Generally Applicable Regulation

None

Storage Vessels (each having a capacity less None 11. than 10,567 gallons and containing organic liquids with a vapor pressure less than 1.5 psia (aqueous solution blending area, FACSFlowTM Area, No. 2 fuel oil tank, No. 6 fuel oil tank)) 12. Cooling Tower - 700 gal/min None 13. Maintenance Workshop None Wastewater Neutralization System -14. None **Equalization Basins**

Permit Number: <u>F-08-006</u> **Page:** 21 **of** 35

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. PM, PM10, SO₂, VOC, and HAP emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Source Emission Limitations:

- a. To preclude the applicability of 401 KAR 52:020, *Title V Permits*, the source-wide emissions shall not equal or exceed the following limits on a twelve (12) consecutive month basis:
 - (1) Particulate matter with a diameter of less than or equal to 10 microns (PM10) emissions: 90 tons per year;
 - (2) Volatile organic compound (VOC) emissions: 90 tons per year;
 - (3) Single hazardous air pollutant (HAP) emissions: 9.0 tons per year; and
 - (4) Combined hazardous air pollutant emissions: 22.5 tons per year.

Compliance with these permit limits shall also preclude this source from being a major stationary source and the requirements of 401 KAR 51:017, *Prevention of Significant Deterioration of Air Quality*, are not applicable to this source.

- b. In order to make the conditional major PM10 emission limits of paragraph 3.a practically enforceable, the permittee shall continue to use particulate control devices and comply with respective monitoring, record keeping and reporting requirements specified in Section B.
- c. In order to make the conditional major/synthetic minor VOC and HAP emission limits of paragraph 3.a practically enforceable, the permittee has voluntarily requested the following production limits:
 - (1) For the Solvent Packaging Area (EP 13/14), the following operating limitations shall apply:
 - i. Dichloromethane packaging in the solvent packaging area shall not exceed 5,529,420 pounds per twelve (12) consecutive month period;
 - ii. Packaging of total VOCs or total HAPs, other than dichloromethane, at the mobile side stations, 5-gallon pail filling station, or drum/tote stations in the solvent packaging area shall not exceed 30,850,000 pounds per twelve (12) consecutive month period; and
 - iii. Packaging of total VOCs or total HAPs, other than dichloromethane, on the two (2) autofill stations in the solvent packaging area shall not exceed 22,212,000 pounds per twelve (12) consecutive month period.

Permit Number: <u>F-08-006</u> **Page:** 22 **of** 35

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

(2) For the Ether/Solvent Packaging Area (EP 17), the following operating limitations shall apply:

- i. Packaging of dichloromethane at the side stations and drum filling station in the ether/solvent packaging area shall not exceed 1,105,884 pounds per twelve (12) consecutive month period; and
- ii. Packaging of total VOCs or total HAPs, other than dichloromethane, at the mobile side stations and drum filling station in the ether/solvent packaging area shall not exceed 3,755,000 pounds per twelve (12) consecutive month period.
- (3) For Stills #1, #2, and #3 (EP 50, EP 55, and EP 56), the following operating limitations shall apply:
 - i. At no time shall Still #1 perform more than 12 clean-up cycles after dichloromethane processing per twelve (12) consecutive month period;
 - ii. At no time shall Still #2 process any HAP other than dichloromethane; and
 - iii. At no time shall Still #3 process dichloromethane.
- d. Pursuant to 401 KAR 63:020, Section 3, persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet.

Compliance Demonstration Method:

Calculate annual source-wide emissions from all emission units specified below for each month of the previous 12-month period (i.e., for the month of January, the compliance demonstration shall be completed in February and shall include all data from February of the previous year to the last day of January). The monthly compliance demonstration shall include, at a minimum, the following:

- a. The monthly and twelve (12) consecutive month total throughput rates and emission rates (VOC, individual HAPs including dichloromethane, and combined HAPs) from the following operations:
 - (1) Solvent Packaging Area (EP 13/14) including packaging, mobile side stations, 5-gallon pail filling station, drum/tote stations, two (2) autofill stations, and solvent hazard hood;
 - (2) Ether/Solvent Packaging Area (EP 17) including packaging, mobile side stations, drum filling station, and one (1) autofill station;
 - (3) Stills #1, #2, and #3 (EP 50, EP 55, and EP 56);
 - (4) Automatic and Hand Filling Liquid Acids (EP 12/15);
 - (5) Rail Car Unloading (EP 23);
 - (6) Truck Unloading (EP 24); and

Permit Number: <u>F-08-006</u> **Page:** 23 **of** 35

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

- (7) Fugitives Distillation/Packaging Area (EP 59).
- b. The monthly and twelve (12) consecutive month emission rates (PM10) from the following operations:
 - (1) Accurate Room Vibratory Feeder/Crusher Feeder (EP 05);
 - (2) Bulk to Bulk Packaging Room/Accurate Hand Pack (EP 07);
 - (3) Cool Room (EP 08);
 - (4) Poison Room (EP 09);
 - (5) Clean Room/Dust & Stain Room (EP 10);
 - (6) Dry Salts Packaging (EP 11); and
 - (7) Indirect Heat Exchangers (EP 01, EP 02, and EP 03).

When calculating the emission rate for an operation utilizing a control system, the permittee may apply the control efficiency value for a pollutant as determined by the most recent performance test(s) approved by the Division or as specified by the manufacturer. The permittee shall apply the control efficiency only when the control system is operational.

Note: For a particulate control system, the permittee shall calculate the controlled particulate emissions by using the outlet grain loading rate times the control system air flowrate.

All emission calculations shall be based on emission factors acquired from acceptable chemical engineering references, including, but not limited to, Perry's *Chemical Engineers' Handbook* and AICHe's *Chemical Engineering Progress*; standard U.S. EPA methodology (e.g., material balance, current TANKS software for storage vessels, current *Protocol for Equipment Leak Estimates* for fugitive components, and AP-42 emission factors); material data sheets; manufacturer's data; an emission factor acquired from a recently conducted stack test approved by the Division; or other emission factor approved by the Division. The monthly emission rates shall be defined as the sum of the products of the processing rates multiplied by each respective emission factor for each emission point.

4. Source Testing Requirements:

None

5. Source Monitoring Requirements:

- a. The permittee shall monitor and record monthly and twelve (12) consecutive month total throughput rates and emission rates (tons of VOC, individual HAPs including dichloromethane, and combined HAPs) for the following operations:
 - (1) Solvent Packaging Area (EP 13/14) including packaging, mobile side stations, 5-gallon pail filling station, drum/tote stations, two (2) autofill stations, and solvent hazard hood;

Permit Number: <u>F-08-006</u> **Page:** 24 **of** 35

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

- (2) Ether/Solvent Packaging Area (EP 17) including packaging, mobile side stations, drum filling station, and one (1) autofill station;
- (3) Stills #1, #2, and #3 (EP 50, EP 55, and EP 56);
- (4) Automatic and Hand Filling Liquid Acids (EP 12/15);
- (5) Rail Car Unloading (EP 23);
- (6) Truck Unloading (EP 24); and
- (7) Fugitives Distillation/Packaging Area (EP 59).
- b. The permittee shall monitor and record monthly the twelve (12) consecutive month emission rates (tons of PM10) for the following operations:
 - (1) Accurate Room Vibratory Feeder/Crusher Feeder (EP 05);
 - (2) Bulk to Bulk Packaging Room/Accurate Hand Pack (EP 07);
 - (3) Cool Room (EP 08);
 - (4) Poison Room (EP 09);
 - (5) Clean Room/Dust & Stain Room (EP 10);
 - (6) Dry Salts Packaging (EP 11); and
 - (7) Indirect Heat Exchangers (EP 01, EP 02, and EP 03).

6. Source Recordkeeping Requirements:

The permittee shall maintain the records specified in **5.** Source Monitoring Requirements in a designated logbook or in an electronic format. Records shall be made available within 30 days of the end of each compliance period and retained for at least five (5) years.

7. Source Reporting Requirements:

- a. The permittee shall report to the Division's Frankfort Regional Office in accordance with **Section F.5 and F.6** the following:
 - (1) monthly and twelve (12) consecutive month total throughput rates and emission rates (tons of VOC, individual HAPs, including dichloromethane, and combined HAPs) for EP 13/14, EP 17, EP 50, EP 55, EP 56, EP 12/15, EP 23, EP 24, and EP 59; and
 - (2) monthly and twelve (12) consecutive month total emission rates (tons of PM10) for EP 05, EP 07, EP 08, EP 09, EP 10, EP 11, EP 01, EP 02, and EP 03.

Permit Number: <u>F-08-006</u> **Page:** 25 **of** 35

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Permit Number: F-08-006 Page: 26 of 35

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:

- a. Date, place (as defined in this permit), and time of sampling or measurements;
- b. Analyses performance dates;
- c. Company or entity that performed analyses;
- d. Analytical techniques or methods used;
- e. Analyses results; and
- f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- 3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit:
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

Permit Number: <u>F-08-006</u> **Page:** 27 **of** 35

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- 9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of each term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

Permit Number: F-08-006 Page: 28 of 35

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Division for Air Quality

Frankfort Regional Office Central Files

663 Teton Trail, Suite B 200 Fair Oaks Lane, 1st Floor

Frankfort, KY 40601 Frankfort, KY 40601

- 10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.
- 11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
 - a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - (1) The size and location of both the original and replacement units; and
 - (2) Any resulting change in emissions;
 - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - d. The replacement unit shall comply with all applicable requirements; and
 - e. The source shall notify Regional office of all shutdowns and start-ups.
 - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
 - (1) Re-install the original unit and remove or dismantle the replacement unit; or
 - (2) Submit an application to permit the replacement unit as a permanent change.

Permit Number: <u>F-08-006</u> **Page:** 29 **of** 35

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12:
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a-6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

Permit Number: <u>F-08-006</u> **Page:** 30 **of** 35

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

Permit Number: <u>F-08-006</u> **Page:** 31 **of** 35

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

- q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].
- b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

Permit Number: <u>F-08-006</u> **Page:** 32 **of** 35

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. <u>Testing Requirements</u>

a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

- b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
 - (5) Notification of the Division does not relieve the source of any other local, state or federal

Permit Number: <u>F-08-006</u> **Page:** 33 **of** 35

SECTION G - GENERAL PROVISIONS (CONTINUED)

notification requirements.

b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].

8. Ozone depleting substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

Permit Number: <u>F-08-006</u> **Page:** 34 **of** 35

SECTION H - ALTERNATE OPERATING SCENARIOS

None

Permit Number: <u>F-08-006</u> **Page:** 35 **of** 35

SECTION I - COMPLIANCE SCHEDULE

None